

Claims:

We claim:

- 1 1. An OFDM receiver for detecting FSK symbols in a communications
2 network, comprising:
3 an OFDM demodulator having an input connected to receive temporal
4 samples of a received FSK signal, and outputs representing the FSK signal
5 in a frequency domain;
6 means for determining an energy for the outputs; and
7 means for comparing the energies of each output to recover a data
8 stream from the FSK signal.
- 1 2. The receiver of claim 1, further comprising:
2 means for grouping the outputs according to predetermined
3 frequencies assigned by a transmitter of the FSK signal, and in which the
4 determining and comparing operates on groups of outputs.
- 1 3. The receiver of claim 2, in which the FSK signal is transmitted by an
2 OFDM transmitter.
- 1 4. The receiver of claim 1, in which a duration of an FSK symbol is equal to
2 a duration of an OFDM symbol.
- 1 5. The receiver of claim 1, in which a duration of an FSK symbol is less than
2 a duration of an OFDM symbol.

- 1 6. The receiver of claim 1, in which a number of outputs of the OFDM
2 demodulator is two for binary FSK.
- 1 7. The receiver of claim 2, in which the outputs are linearly weighed.
- 1 8. The receiver of claim 7, in which the weighing uses a minimum mean
2 square error criterion.
- 1 9. A method for detecting FSK symbols in a communications network,
2 comprising:
3 an OFDM demodulating an input connected to receive temporal
4 samples of a received FSK signal, and outputs representing the FSK signal
5 in a frequency domain;
6 determining an energy for the outputs; and
7 comparing the energies of each output to recover a data stream from
8 the FSK signal.